

REMARKS

This Reply is being filed together with a Request for Continued Examination and a Revocation and New Power of Attorney.

Claims 1-26 are pending. Claims 1 and 16 are the independent claims. Claim 26 is new.

Claim 21 is objected to for using the allegedly unclear expression "stamped part." Claim 21 has been amended to remove the offending language and replace it with the expression "singulated part." See, for example, the specification at page 3, last paragraph.

The independent claims stand rejected as obvious over U.S. Patent No. 5,516,727 ("Broom") in view of U.S. Patent No. 5,218,611 ("Tanaka") and U.S. Patent No. 4,387,385 ("Thillays"). We traverse.

Independent claim 1 as presently amended requires that "the region between said light-emitting power semiconductor device and said optical waveguide is filled, at least segmentally, with a transparent plastic material a transparent plastic material that *contacts* the light exit region of the power semiconductor device" (emphasis added).

There is no such teaching in the proposed combination of references. To the contrary, Broom, the primary reference, clearly teaches the opposite – that only an "air-gap" contacts the light exit region of the power semiconductor device:

"A disadvantage of hermetically sealing light emitting diodes using an encapsulant is illustrated in FIG. 1. In it, the encapsulant adheres to the light emitting facet. Thus, it directly interacts with it and causes thermal problems if light beams with high optical flux density are to be generated. Furthermore, chemical changes in the encapsulant caused by high optical flux, can accelerate degradation (corrosion) of the facet." (Broom at col. 1, lines 60-67).

"In accordance with the invention, the above objects are accomplished by providing an 'air' gap or a region having an inert gas in direct contact with the light emitting facet of a light emitting diode while leaving the remaining portions of the diode sealed in the encapsulant." (Broom at col. 2, lines 10-14).

Every embodiment in Broom shows such an air gap. See, for example, gap 27 in Figs. 2 and 3C, gap 47 in Fig. 4C, and gap 60 in Fig. 5D, and the corresponding text in Broom.

Because the primary reference Broom expressly teaches away from a “plastic material that contacts the light exit region of the power semiconductor device,” as recited in claim 1, we submit that the Section 103 rejection must fail. Accordingly, we ask the Examiner to withdraw the prior art rejection of claim 1, and those claims that depend from it.

Independent claim 16 as presently amended requires that “an optical waveguide including an exit end of the optical waveguide is completely shrouded in said plastic protective body,” followed by “removing the portion of the plastic protective body that covers the exit end of the optical waveguide to expose a light exit surface of said optical waveguide at the exit end.” We submit that there is no such disclosure in the cited references.

To the contrary, Broom (which is the reference pointed to in the action for such disclosure) simply states: “an encapsulant 45 is flowed over laser 40 and fiber 42” (col. 4, line 27 and Fig. 4C). There is no teaching or suggestion in Broom that encapsulant 45 “completely shrouds” fiber 42 including its exit end, or that a portion of the encapsulant covering the exit end is then removed from the exit end to expose a light exit surface of the fiber at the exit end.

Accordingly, we ask that the rejection of claim 16, and the claims that depend from it be withdrawn.

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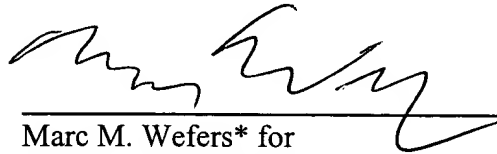
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Enclosed is a check for excess claim fees and a check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050, referencing Attorney Docket No. 12406-011001.

Respectfully submitted,

Date: _____

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***See attached document certifying that Marc M. Wefers has limited recognition to practice before the U.S. Patent and Trademark Office under 37 C.F.R. § 10.9(b).**